



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0819; Project Identifier 2019-CE-027-AD]

RIN 2120-AA64

Airworthiness Directives; Textron Aviation Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 97-06-10, which applies to certain Raytheon Aircraft Company (type certificate now held by Textron Aviation Inc. (Textron)) Model 76 airplanes. AD 97-06-10 requires repetitively inspecting the main landing gear (MLG) “A” frame assemblies for cracks and replacing any cracked assembly. Since the FAA issued AD 97-06-10, the replacement parts have also experienced failure due to cracking. This proposed AD would require magnetic particle inspections of the MLG “A” frame assemblies for cracks and replacement of the affected parts if necessary. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277; phone: (316) 517-5800; email: customer care@txtav.com; website: <https://txtav.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0819; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Brian Adamson, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4193; fax: (316) 946-4107; email: brian.adamson@faa.gov or Wichita-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0819; Project Identifier 2019-CE-027-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting

data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Brian Adamson, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Rd, Wichita, KS 67209; phone: (316) 946-4193; fax: (316) 946-4107; email: brian.adamson@faa.gov or Wichita-COS@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 97-06-10, Amendment 39-9967 (62 FR 12949, March 19, 1997) (AD 97-06-10), for Raytheon Aircraft Company (type certificate now held by Textron) Model 76 airplanes, serial numbers ME-1 through ME-437, that do not have both a part number (P/N) 105-810023-75 (left) and P/N 105-810023-76 (right) MLG “A” frame assembly installed. AD 97-06-10 requires repetitive visual and dye penetrant inspections of the MLG “A” frame assemblies for cracks and replacement of any assembly found cracked. AD 97-06-10 resulted from Raytheon developing improved design MLG “A” frame assemblies (P/N 105-810023-75 and P/N 105-810023-76), and

the FAA's determination that Model 76 airplanes with these improved design assemblies installed on both the left and right MLG should be exempt from the AD requirements. The FAA issued AD 97-06-10 to prevent MLG failure because of a cracked "A" frame assembly, which could result in loss of control of the airplane during landing.

Actions Since AD 97-06-10 Was Issued

Since AD 97-06-10 was issued, the FAA received reports of P/N 105-810023-75 and P/N 105-810023-76 "A" frame assemblies cracking and failing, resulting in damage to the propeller and outboard wing area. Analysis of the cracked parts identified fatigue cracking as the cause of failure. In some cases, the failed parts had been subjected to visual and dye penetrant inspections within 100 hours before the failure. The FAA determined visual and dye penetrant inspections did not adequately detect cracks in the MLG "A" frame assemblies, and this proposed AD would require repetitive magnetic particle inspections. Magnetic particle provides quicker results (after testing setup) with improved accuracy.

Also, since AD 97-06-10 was issued, the type certificate for the Model 76 airplane was transferred from Raytheon to Textron and Textron designed new replacement parts, P/Ns 105-810023-0083 (left) and 105-810023-0084 (right), that would not be subject to the repetitive magnetic particle inspections proposed in this NPRM. However, the newly designed MLG assemblies are still subject to the repetitive inspections specified in the maintenance manual.

FAA's Determination

The FAA is issuing this NPRM after determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR part 51

The FAA reviewed Beechcraft Mandatory Service Bulletin SB 32-4156, dated May 3, 2019. The service information specifies a repetitive magnetic particle inspection for fatigue cracks adjacent to the gussets for the torque arm of each MLG "A" frame and destroying the assembly if cracks are found. The service information also specifies procedures for installing a replacement assembly or re-installing an assembly when no cracks are found. This service information is reasonably available because the interested

parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Proposed AD Requirements in this NPRM

This proposed AD would retain none of the requirements of AD 97-06-10. This proposed AD would require magnetic particle inspection of the MLG “A” frame assemblies and provides new designed assemblies for replacement, P/Ns 105-810023-0083 (left) and 105-810023-0084 (right).

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 437 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of MLG “A” frame assembly	26 work-hours X \$85 per hour = \$2,210	Not applicable	\$2,210	\$965,770

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. The FAA has no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of assembly (NOTE: No additional labor cost since re-installation labor is included with the inspection cost)	Not applicable	\$7,864	\$7,864

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 97-06-10, Amendment 39-9967 (62 FR 12949, March 19, 1997); and
- b. Adding the following new airworthiness directive:

Textron Aviation Inc.: Docket No. FAA-2020-0819; Project Identifier 2019-CE-027-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 97-06-10, Amendment 39-9967 (62 FR 12949, March 19, 1997) (AD 97-06-10).

(c) Applicability

This AD applies to Textron Aviation

(type certificate previously held by Raytheon Aircraft Company, Hawker Beechcraft Corporation, and Beechcraft Corporation) Model 76 airplanes, serial numbers ME-1 through ME-437, certificated in any category, except airplanes with main landing gear (MLG) “A” frame assemblies part number (P/N) 105-810023-0083 (left) and P/N 105-810023-0084 (right) installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 3200; Landing Gear.

(e) Unsafe Condition

This AD was prompted by cracks found in MLG “A” frame assemblies. The FAA is issuing this AD to detect and correct cracks in the MLG assemblies, which, if not addressed, could result in failure of the MLG assemblies and lead to loss of control of the airplane during landing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Actions

Within 100 hours time-in-service (TIS) after the last dye penetrant inspection required by AD 97-06-10 or within 12 months after the effective date of this AD, whichever comes first, and thereafter at intervals to not exceed 100 hours TIS or 12 months, whichever occurs first, do a magnetic particle inspection for cracks on the left MLG “A” frame assembly P/N 105-810023-3, 105-810023-67, or 105-810023-75 and the right MLG “A” frame assembly P/N 105-810023-4, 105-810023-68, or 105-810023-76 and, before further flight, take all necessary corrective actions. Do all actions by following the Accomplishment Instructions, paragraphs 4 through 13, of Beechcraft Mandatory Service Bulletin SB 32-4156, dated May 3, 2019.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Brian Adamson, Aviation Safety Engineer, Wichita ACO Branch, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4193; fax: (316) 946-4107; email: brian.adamson@faa.gov or Wichita-COS@faa.gov.

(2) For service information identified in this AD, contact Textron Aviation Customer Service, P.O. Box 7706, Wichita, Kansas 67277; phone: (316) 517-5800; email: customercare@txtav.com; website: <https://txtav.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued on December 8, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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